REMARKS

Administrative Overview

Initially, claims 1–52 were presented for examination. In the Office Action mailed on September 26, 2003, claims 27–52 were rejected under 35 U.S.C. § 101 for failing to provide a concrete, useful and tangible output. Claims 1–52 were rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to point out and distinctly claim the subject matter which the Applicants regard as their invention. Claims 1–52 were also rejected as unpatentable over "Optimization-Based Auctions and Stochastic Assembly Replenishment Policies for Industrial Production" by Gallien (hereinafter "*Gallien*") in further view of U.S. Patent No. 6,012,045 to Barzilai (hereinafter "*Barzilai*").

The Applicants hereby amend the claims and respectfully request reconsideration of the claims in light of the arguments below. Support for these amendments may be found, for example, at paragraphs 64 and 143–61 of the published application. The Applicants submit that no new matter has been introduced by these amendments. After the entry of these amendments, claims 1–52 will be pending in this application.

Each of the outstanding objections is addressed in the order in which they appear in the Office Action.

The Pending Claims, as Amended, are Taken from the Office's Publication of this Application

The undersigned has been newly retained by the Applicants in connection with the prosecution of the instant application, and a power of attorney accompanies this paper. The undersigned does not yet have a copy of the application that was filed with the Office and has used the claims published by the Office in Publication No. 2003/0004850A1 in the preparation of this Response. Similarly, citations to material in the Applicants' specification are made with respect to the numbered paragraphs of the published application.

The undersigned respectfully requests that he be advised of any differences between the application as filed and the published application for use in future correspondence with the Office.

The Pending Claims, as Amended, Satisfy the Requirements of 35 U.S.C. § 101

        Claims 27–52 were rejected under 35 U.S.C. § 101 for failing to provide a concrete, useful and tangible output. MPEP § 2106 provides that, with respect to compliance with 35 U.S.C. § 101, "[w]hen functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized." Specifically, "a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory." Id.

        Pending independent claim 27 recites, in part:

> Computer-readable media having encoded thereon software ...
> comprising instructions for:
>
> receiving from a buyer ... public buyer-constraints representative
> of said requisition;
>
> transmitting to a set of prospective suppliers ... said public buyer-
> constraints;
>
> receiving from each candidate supplier ... a bid responsive to said
> public buyer-constraints... ; and
>
> determining an optimal award schedule for at least partial
> satisfaction of said requisition utilizing a specified objective
> function ... said specified objective function including non-price
> criteria.

        We respectfully submit that, as required by MPEP § 2106, independent claim 27 recites a computer-readable medium encoded with a computer program including functional descriptive material. This claimed subject matter is statutory because use of the medium permits the function of the descriptive material — i.e., the determining of an optimal award schedule for at least partial satisfaction of a requisition — to be realized. This optimal award schedule is both concrete and useful.

        For these reasons, we respectfully submit that independent claim 27, and pending claims 28–52, which depend therefrom, satisfy the strictures of 35 U.S.C. § 101.

The Pending Claims, as Amended, Satisfy the Requirements of 35 U.S.C. § 112

Claims 1–52 were rejected under 35 U.S.C. § 112, ¶ 2 for failing to particularly point out and distinctly claim the subject matter that the Applicants regard as their invention. More specificity in the independent claims was requested to present the unique features of the disclosure with respect to the prior art. The claims were said to be too broad and to read on any auction service.

MPEP § 2106 provides that, with respect to compliance with 35 U.S.C. § 112, ¶ 2, "[w]hen a claim or part of a claim is defined in computer program code ... a person of skill in the art must be able to ascertain the metes and bounds of the claimed invention." Moreover, "[a]pplicants should be encouraged to functionally define the steps the computer will perform rather than simply reciting source or object code instructions." Id.

Independent claims 1 and 27 both recite, in part:

> receiving from a buyer ... public buyer-constraints representative of said requisition;
>
> transmitting to a set of prospective suppliers ... said public buyer-constraints;
>
> receiving from each candidate supplier ... a bid responsive to said public buyer-constraints... ; and
>
> determining an optimal award schedule for at least partial satisfaction of said requisition utilizing a specified objective function ... said objective function including non-price criteria.

We respectfully submit that, as required by MPEP § 2106, independent claims 1 and 27 functionally define the steps that a computer will perform instead of simply reciting source or object code instructions, enabling one of skill in the art to determine the bounds of the claimed invention. This is all that is required by 35 U.S.C. § 112, ¶ 2. The concern that the claims are too broad and read on any auction service is a rejection over the prior art that is addressed below.

For these reasons, we respectfully submit that independent claims 1 and 27, and the remaining claims that depend therefrom, satisfy the requirements of 35 U.S.C. § 112, ¶ 2.

The Claims, as Amended, are Patentable over *Gallien* and *Barzilai*

Claims 1–52 were rejected as unpatentable over *Gallien* in further view of *Barzilai*. It is assumed that the rejection is under 35 U.S.C. § 103, although the Office Action is silent on this

point. Accordingly, to demonstrate a *prima facie* case of obviousness, the prior art references (when combined) must teach or suggest all of the limitations of the claims at issue. See MPEP § 2143. The Applicants respectfully submit that *Gallien* and *Barzilai*, either taken individually or in proper combination, do not teach or suggest all of the limitations of independent claims 1 and 27 and therefore do not legally establish a *prima facie* case of obviousness of these claims or of the remaining claims that depend therefrom.

Generally speaking, the present invention relates to "a computer-implemented method for determining an optimal award schedule for at least partial satisfaction of [a] requisition." Application at ¶ 0011. Constraints from a buyer are sent to prospective suppliers, who submit bids responsive to the constraints that are received and subsequently analyzed to determine an optimal award schedule. See id. at ¶ 0012. The buyer's constraints may include traditional price terms, such as a maximum price to be paid for satisfaction of a requisition, but in accordance with the present claims, they also include non-price terms. Such terms may include, for example, one or more of a desired time, a desired quality, and a desired quantity. See id. at ¶ 0013.

In brief overview, *Gallien* describes "an optimization based auction mechanism ('Smart Market') relying on the dynamic resolution of a linear program minimizing the buyer's cost under the suppliers' capacity constraints." *Gallien* at 2. *Gallien* assumes that the only parameters specified in contracts between buyers and sellers in the smart market "are the total quantity along with the corresponding selling price for each component type." Id. at 20. "In particular, the rules by which payment terms, delivery schedules, insurance provisions, etc. will be determined are clearly defined from the outset and accepted by suppliers." Id. The outcome of the *Gallien* system is the minimization of the buyer's cost under the suppliers' capacity constraints. See *Gallien* at 2.

Barzilai teaches "a computer-based method of selling consumer products and consumer services." *Barzilai* at Abstract. "The computer-based method electronically posts all bids made by bidders on the products and services during the bid period. The system accepts the highest bid while excluding bids greater than the lower high bid from a single bidder." Id.

Amended independent claims 1 and 27 both recite, in part, "determining an optimal award schedule for at least partial satisfaction of said requisition utilizing a specified objective function ... said objective function including non-price criteria." We respectfully submit that

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neither *Gallien* nor *Barzilai*, alone or in combination, teaches or suggests at least this claim limitation because neither of these references teaches the use of non-price criteria in determining an optimal award schedule; certainly neither reference teaches explicit use of non-price criteria in an objective function capable of optimization.

As discussed above, *Gallien* teaches a system that "calculates the quantity allocation ... to [each] supplier ... minimizing the buyer's total procurement cost, under both the quantity requirement constraints for each component type, and the capacity constraint of each supplier." *Gallien* at 22 (emphasis added). That is, the *Gallien* system only determines an award schedule using a price criterion. *Barzilai* does not cure this deficiency. As discussed above, *Barzilai* also concerns a system that "accepts the highest bid while excluding bids greater than the lowest high bid from a single bidder." *Barzilai* at Abstract.

For these reasons, we submit that *Gallien* and *Barzilai*, by themselves or in proper combination, fail to teach or suggest all of the elements present in the Applicants' independent claims 1 and 27. Therefore, we respectfully submit that independent claims 1 and 27, and the remaining claims, which depend therefrom, are patentable over *Gallien* and *Barzilai*.
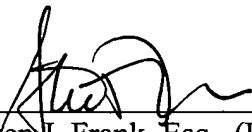
CONCLUSION

In light of the foregoing, we respectfully submit that all of the pending claims are in condition for allowance. Accordingly, we respectfully request reconsideration, withdrawal of all grounds of rejection, and allowance of all of the pending claims in due course.

If the Examiner believes that a telephone conversation with the Applicants' attorney would be helpful in expediting the allowance of this application, the Examiner is invited to call the undersigned at the number identified below.

Respectfully submitted,

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Steven J. Frank, Esq. (Reg. No. 33,497)
Attorney for Applicants
Tel. No.: (617) 310-8108
Fax No.: (617) 248-7100
TESTA, HURWITZ, & THIBEAULT, LLP
High Street Tower
125 High Street
Boston, MA 02110

3038581